

### Remarks

Favorable reconsideration of this application is requested in view of the following remarks. For the reasons set forth below, Applicant respectfully submits that the claimed invention is allowable over the cited references.

The non-final Office Action dated April 21, 2004, indicated that claims 15, 18-20 and 30 are rejected under 35 U.S.C. § 112(2); claims 1-17 and 28-30 are rejected under 35 U.S.C. § 102(e) over *Birdsley et al.* (U.S. Pat. No. 6,448,096); and claims 1 and 28 are rejected under 35 U.S.C. § 102(b) over *Ishii et al.* (U.S. Pat. No. 5,493,236).

With respect to the restriction requirement, Applicant has canceled claims 21-27 without prejudice and reserves the right to pursue the canceled subject matter in a continuing application.

Applicant has also canceled claims 1 and 20 without prejudice, thus the rejections of these claims are moot. Applicant requests that the rejections of claims 1 and 20 be withdrawn.

Applicant respectfully traverses the Section 112(2) rejection of claims 15 and 30 because the claim language clearly teaches the subject matter of the claimed invention. The claim language indicated that the adjacent (claim 15) and surrounding (claim 30) circuitry is not necessarily stimulated, thus stimulation is not required. Notwithstanding, Applicant has amended claims 15 and 30 to remove the word “necessarily.” This broadening of the claim scopes does not introduce new matter and more clearly characterizes that the respective adjacent and surrounding circuitry is not stimulated.

Applicant further traverses the Section 112(2) rejection of claims 15 and 30 regarding the use of the terms “sufficiently small.” The MPEP and established case law acknowledge that use of qualifying terms are acceptable if one skilled in the art would understand the limitations of such qualifying language. The skilled artisan would recognize that the probe tip radius must be small enough to avoid stimulating unselected circuitry. In view of the above amendments and discussion, Applicant requests that the Section 112(2) rejection of claims 15 and 30 be withdrawn.

Applicant also respectfully traverses the Section 112(2) rejection of claims 18 and 19 because the claim language clearly teaches the subject matter of the claimed invention. The Office Action indicates confusion as to how the die design is to be modified. An explanation of the modification is not required by the claims because Applicant is not

claiming the particulars of the modification. As discussed in the Background of the instant Specification at page 1, line 17, *et seq.*, integrated circuits are manufactured and tested in order to identify defects and use the results to modify the circuit designs or manufacturing processes for subsequent improvements and new prototypes. Applicant submits that the claim language clearly describes that the detected electrical characteristics are used to modify a die design as described in the Background. Applicant accordingly requests that the Section 112(2) rejection of claims 18 and 19 be withdrawn.

Applicant respectfully traverses the Section 102(e) rejection because the Office Action fails to present an anticipating reference. The Office Action fails to identify where the '096 reference teaches applying an electric field to the die, as claimed, or where the '096 reference teaches detecting a response of the die. Applicant's review of the cited areas of the '096 reference correspond to using an AFM probe merely to detect a state of certain circuitry (*e.g.*, source/drain regions). *See* column 5, lines 46-54. The Office Action is vague as to evidence showing the '096 reference teaching an application of an electrical field to the die, and the detection of certain '096 circuitry does not appear to involve any response of the die to an electrical field. Without a presentation of correspondence to each of the claimed limitations, the Section 102(e) rejection is improper and Applicant requests that the rejection be withdrawn.

Applicant also respectfully traverses the Section 102(b) rejection of claim 28 because the Office Action fails to present a reference that corresponds to the claimed invention. Claim 28 is drafted in a form that specifically invokes Section 112(6) of the patent laws, which requires that the "means" terms shall be construed to cover the corresponding structure as described in the specification for the identical function claimed. For example, the first "means" term of claim 28 is for applying an electric field to stimulate die circuitry. The Specification in support of this means term provides examples corresponding to the structure: the first "means" term corresponds to the examples provided in the last several lines of page 7, and includes microscopy-probe implementations such as SPM, AFM and capacitance probe microscopy. Thus, Section 112(6) requires that this "means" term shall be construed to cover the structure corresponding to, for example, SPM, AFM and capacitance probe microscopy. The rejection, however, relies on an OBIC laser beam which, by definition, optically induces current using a wavelength relative to the bandgap parameters of the semiconductor

circuit material. The OBIC laser beam structure cannot be considered equivalent to Applicant's exemplary structures since OBIC lasers are not interchangeable, provide an entirely different and unique "OBIC" phenomena, and require a myriad of other non-corresponding supporting circuitry, as is specifically described in the '236 reference. Accordingly, the evidence shows that the '236 reference does not correspond to the subject matter set forth in claim 28. Without a presentation of correspondence to each of the limitations of the claims, the Section 102(b) rejection is improper and Applicant requests that the rejection be withdrawn.

Consistent with the above discussion, Applicant also traverses the characterization of the art made of record but not relied upon at page 10 in paragraph 10 of the Office Action. However, because this art was not used in connection with any of the rejections, Applicant submits that any such mischaracterization is moot and would require no further discussion.

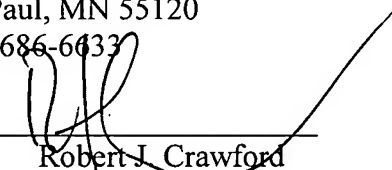
Please charge Deposit Account No. 01-0365 (TT4651) in the amount of \$516.00 for the six additional independent claims. Also, please charge/credit the same deposit account for any additional fees/overages.

In view of the above discussion, Applicant believes that the rejection has been overcome and the application is in condition for allowance. A favorable response is requested. Should there be any remaining issues that could be readily addressed over the telephone, the Examiner is encouraged to contact the undersigned at (651) 686-6633.

Respectfully submitted,

CRAWFORD MAUNU PLLC  
1270 Northland Drive, Suite 390  
St. Paul, MN 55120  
651/686-6633

Dated: July 14, 2004

By:   
Robert J. Crawford  
Reg. No. 32,122